Statistical Bulletin

METROPOLITAN LIFE INSURANCE COMPANY

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Chances of Death in a Family

THE long-term decline in mortality has had a strong stabilizing influence on family life in the United States. In families where there are young children, the chances are now less than 1 in 100 that one of the parents will die within a year. However, child-rearing covers a considerable number of years, and even under current mortality conditions the likelihood that the father or mother will fail to survive this important period is substantial. Each year more than 700,000 families in our country are broken by the death of the husband or wife. In addition, many thousands of homes annually are bereft of a son or a daughter.

The table on page 2 shows, for several typical white family groups, the chances of death within specified periods, separately for the husband and jointly for the other family members. For example, in families where the husband is 20 years old, the wife 19, and the child an infant, the chances are only 9 per 1,000 that the husband will die within five years, and only 10 per 1,000 that either the wife or the child, or both, will die within that period. The probabilities of death within this relatively short period of five years are greater for larger families and also where the parents are older. Thus, the chances of death within five years increase to 15 per 1,000 for the father who is 35 years of age and to 17 per 1,000 for at least one other member of the family which, in the example shown in the table, includes a wife and three children.

More often than not, the husband is the first member of the family to die. Even in recently formed families, where the father is still relatively young, the chances of his death are only a little less than the chances that at least one other member of the family will die. On the other hand, for families of longer duration it is likely that the father will predecease the other members of the family, even if there are three or more children present. For example, in the typical family situations illustrated in the table, the chances of death within 15 years are greater for a husband at age 30 or older than for his wife or any one of his children. Where the father is at least 35 years of age, he is likely to be the first in the family to die within a 10-year period.

The untimely death of the husband —the principal breadwinner in most American families—usually throws

CHANCES OF DEATH IN TYPICAL FAMILIES

CHANCES THAT HUSBAND WILL DIE WITHIN SPECIFIED NUMBER OF YEARS AND CORRESPONDING CHANCES OF AT LEAST ONE DEATH AMONG OTHER MEMBERS OF A FAMILY. WHITE POPULATION, UNITED STATES, 1949-1951

AGE OF MEMBERS IN F

Husband	Wife	Ch	
		First	Se
20	19	1	
25	23	3	
30	28	6	
35	32	8	
40	37	12	
45	41	15	1

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For a large number of families with preschool children, almost two decades will pass before the formal education of the youngest child is completed. In this connection, interest attaches to the chances that the family head will fail to survive only 180 per 1,000.

The families of America provide for their long-term needs and for contingencies, such as the premature death of the breadwinner, in a variety of ways. These include savings accounts, investments, and Life insurance. At present, more than three out of every four families in our country own some type of Life insurance.

Trends in Respiratory Cancer Mortality*

WHILE THE number of deaths reported in the United States

cancer mortality has been more rapid in later life than at the younger ages. and 1950, the death cause among white by about 130 percent y 265 percent at ages ı about 350 to more ıt at subsequent de- iods. The details of or males and females opulation are shown s noteworthy that in ratory cancer death te males reached its ges 65-74 and then hat, whereas among he death rate con- the oldest ages. Such in the male death itory cancer was also nada, England, and

sure, the rise in the ity from cancer of system has been due agnostic techniques plete case finding. good training in greatly increased in specialists in radi- noscopy. With more abundant facilities available for diagnosis of respiratory cancer and the more frequent use of radical surgery, many cases of the disease have been uncovered which would have been missed in earlier years. The growing tendency to obtain microscopic confirmation in suspected cases has had

males had increased to about 4½ times that among white females, whereas in 1930 the corresponding ratio had been only about 2¼ to 1. Even among males, however, respiratory cancer now accounts for only one fifth of the mortality from all cancers.

In each sex, the rise in respiratory

*This article is based upon a paper, "Recent Trends in Mortality From Respiratory Cancer," by Edward A. Lew, Actuary and Statistician, Metropolitan Life Insurance Company, presented at the 19th Annual Congress of the International College of Surgeons, Chicago, September 8, 1954.

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CHANCES THAT HUSBAND WILL DIE WITHIN SPECIFIED NUMBER OF YEARS AND CORRESPONDING CHANCES OF AT LEAST ONE DEATH AMONG OTHER MEMBERS OF A FAMILY. WHITE POPULATION, UNITED STATES, 1949-1951

AGE OF MEMBERS IN FAMILY					CHANCES PER 1,000 OF DYING							
Husband	Wife	CHILDREN			WITHIN 5 YEARS		WITHIN 10 YEARS		WITHIN 15 YEARS		WITHIN 20 YEARS	
		First	Second	Third	Husband	Others	Husband	Others	Husband	Others	Husband	Others
20	19	1	—	—	9	10	17	17	27	26	41	39
25	23	3	1	—	9	14	19	25	33	39	56	62
30	28	6	3	—	10	12	25	26	48	46	84	75
35	32	8	5	2	15	17	38	37	75	67	130	108
40	37	12	9	5	24	20	61	49	117	90	197	142
45	41	15	11	7	38	26	96	63	178	114	286	180

a heavy economic burden on the survivors. This is particularly true when he leaves dependent children who are many years removed from the age of self-support. The mother in such families is often faced with the dual task of maintaining a home for the children and seeking gainful employment. Nor is the premature death of the family head an infrequent occurrence in the United States. In 1953 alone, death claimed about 122,000 husbands under 55 years of age—in other words, at the period of life when their family probably included dependent children.

For a large number of families with preschool children, almost two decades will pass before the formal education of the youngest child is completed. In this connection, interest attaches to the chances that the family head will fail to survive for 20 years. These probabilities of death are shown in the next to the last column of the table. Thus, for a husband at age 25, there are 56 chances per 1,000 that he will die within two decades. Moreover, with advance in age these chances increase rapidly, rising to 130 per 1,000 if he is 35 years old, and to 286 per 1,000 if he is 45. In the latter situation, the chances of death for at least one other member of the family are considerably smaller, namely, only 180 per 1,000.

The families of America provide for their long-term needs and for contingencies, such as the premature death of the breadwinner, in a variety of ways. These include savings accounts, investments, and Life insurance. At present, more than three out of every four families in our country own some type of Life insurance.

Trends in Respiratory Cancer Mortality*

WHILE THE number of deaths reported in the United States from cancer of the respiratory system has been increasing rapidly in the past quarter of a century—from 3,900 in 1930 to almost 27,000 in 1953 — approximately half this increase reflects merely the growth and aging of the population, and a considerable part of the remainder represents improved diagnosis and more complete case finding. Nevertheless, there does appear to be an appreciable real rise in the incidence of respiratory cancer, but data are not available to show how much of it can reasonably be attributed to the effect of specific factors.

Both sexes have experienced a rise in the death rate from cancer of the respiratory system, but the increase has been very much more rapid among males than among females. For example, among white males the age-adjusted death rate in 1950 was four times that in 1930, whereas among females the rate had not quite doubled; the details appear in the chart on page 4. As a result of the sex difference in trend, the death rate from respiratory cancer among white males had increased to about 4½ times that among white females, whereas in 1930 the corresponding ratio had been only about 2¼ to 1. Even among males, however, respiratory cancer now accounts for only one fifth of the mortality from all cancers.

In each sex, the rise in respiratory cancer mortality has been more rapid in later life than at the younger ages. Between 1930 and 1950, the death rate from this cause among white males increased by about 130 percent at ages 35-44, by 265 percent at ages 45-54, and from about 350 to more than 400 percent at subsequent decennial age periods. The details of the experience for males and females in the white population are shown in Chart 2. It is noteworthy that in 1950 the respiratory cancer death rate among white males reached its maximum at ages 65-74 and then declined somewhat, whereas among white females the death rate continued to rise to the oldest ages. Such an earlier peak in the male death rate from respiratory cancer was also recorded in Canada, England, and other countries.

In large measure, the rise in the reported mortality from cancer of the respiratory system has been due to improved diagnostic techniques and more complete case finding. Physicians with good training in diagnosis have greatly increased in number, as have specialists in radiology and bronchoscopy. With more abundant facilities available for diagnosis of respiratory cancer and the more frequent use of radical surgery, many cases of the disease have been uncovered which would have been missed in earlier years. The growing tendency to obtain microscopic confirmation in suspected cases has had

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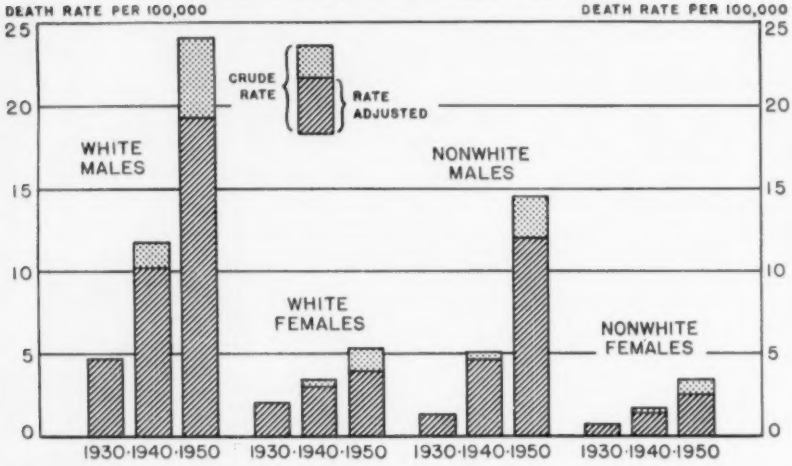
Chart 1—Mortality From Cancer of the Respiratory System

CRUDE AND AGE-ADJUSTED* DEATH RATES
BY SEX AND COLOR. UNITED STATES, 1930-1950



	WHITE MALES			WHITE FEMALES			NONWHITE MALES			NONWHITE FEMALES		
	1930	1940	1950	1930	1940	1950	1930	1940	1950	1930	1940	1950
CRUDE RATE	4.8	11.8	24.1	2.1	3.5	5.4	1.3	5.1	14.5	0.7	1.7	3.4
ADJUSTED	—	10.3	19.4	—	3.1	4.0	—	4.7	12.1	—	1.4	2.6

*Death rates for 1940 and 1950 adjusted on the basis of the age distribution of the population for each sex and color in 1930.

the same effect. Furthermore, the sharp declines in the mortality from tuberculosis, pneumonia, and other respiratory diseases have probably resulted in fewer cases of respiratory cancer being unrecognized and attributed to these other diseases.

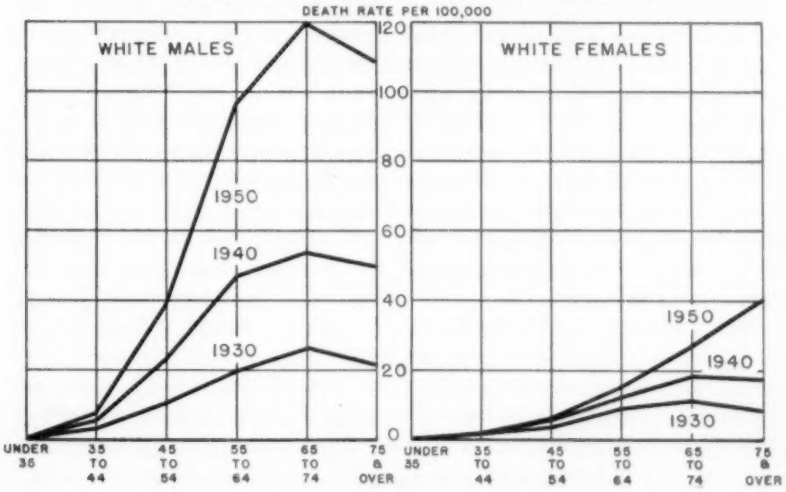
That much of the recent increase in the recorded mortality from respiratory cancer has resulted from improved diagnosis and more complete case finding is indicated by the geographic variations in the trend of the death rate from the disease. In general, the smallest relative increases between 1940 and 1950 were recorded in the States with the highest death rates in 1940 and the largest increases in the States with the lowest rates. This is consistent with the hypothesis that, in the past, geographic differences in respiratory cancer mortality reflected largely differences in the proportion of such cases detected and reported.

On the other hand, there is evidence that part of the increase in the death rate from cancer of the respiratory system is real. For example, if all the increase among white males was due to better detection and reporting, it would mean that physicians practicing a quarter of a century ago were able to identify at most only one out of every five cases existing at that time. Furthermore, the rise in the mortality from respiratory cancer is continuing despite the fact that the disease is now more generally recognized.

Another point to be considered is that if all the increase in the death rate from this disease was due merely to better detection and reporting, the rise in the mortality among white females would not have been smaller than that among white males. This suggests that a considerable part of the rise in the death rate from this disease among white males cannot be accounted for in this manner, since it is difficult to see why physicians should be able to diagnose the disease more readily in one sex than in the other. The same line of reasoning follows from the fact that the largest relative increases in the death rate from respiratory cancer occurred at the oldest ages. If the rise at the younger ages was all due to better detection and reporting, it would still leave most of the increase at the older ages unaccounted for.

It is pertinent to note here that a considerably higher death rate from respiratory cancer has been experienced by white men insured under Industrial policies in the Metropolitan Life Insurance Company—for the most part urban wage-earners—than by white men in the general population of the United States. This cannot be explained in terms of better diagnostic facilities in urban areas, since white female Industrial policyholders residing in the same areas have shown respiratory cancer death rates substantially the same as those for white females in the general population. Furthermore, white male Ordinary policyholders of the Company—drawn chiefly from the middle and well-to-do groups engaged in nonhazardous occupations—who presumably have access to even better diagnostic facilities than the Indus-

Chart 2—Mortality From Cancer of the Respiratory System
WHITE PERSONS BY SEX AND AGE. UNITED STATES, 1930-1950



trial policyholders, have experienced somewhat lower death rates from the disease than white males in the general population. These facts suggest that there is an association between respiratory cancer and factors related to environment, occupation, and social class.

Hospitalization at the Younger Ages

DURING the year, one child in every 12 is admitted to a hospital and the average stay is five days, according to the experience for children of Metropolitan Life Insurance Company personnel insured under the Company's Group insurance program. The families of the office and field personnel included in this study were located in virtually all sections of the United States.* The period covered was the year from August 1953 through July 1954.

Among these insured children, who were 18 years of age and under, there were approximately three hospital expense claims paid on boys for every two paid on girls. The age distribution of cases, nevertheless, was similar for both sexes. Three fourths of the children hospitalized were under age 10, with an equal number at ages under 5 years and at ages 5 to 9 years. As may be seen in Table 1, the children hospitalized for surgical treatment were somewhat older on the average than those admitted for nonsurgical treatment of injury or disease.

For the group as a whole, the average stay in the hospital was five days; for the girls it was 5.4 days and for the boys 4.7 days. For surgical cases in each sex the average stay was 3.6 days, whereas for nonsurgical cases it was 7.7 days for boys and 10.0 days for girls. Table 1 shows that children at ages 5-9 had the shortest period of hospitalization and those at ages 15-18 the longest.

Surgery, including the treatment of fractures and dislocations, was performed on 70 percent of the children hospitalized in this experience. As Table 2 shows, tonsillectomies and adenoidectomies accounted for somewhat over half of all the surgical cases. Children admitted for such operations stayed in the hospital only a short time, three quarters of them remaining only one day. Most of the tonsillectomies were performed on children 3-7 years of age, with five years being the most common single age. The spring was the favored time of year for these operations, few of them being performed during the poliomyelitis season.

Appendectomies ranked second on the list of surgical procedures, accounting for 10 percent of the number of operations but for 17 percent of the days of hospital care. For individual cases the length of hospital stay averaged 6.2 days. Two fifths of the appendectomies were on children at ages 10-14 years, and one fifth on those 15-18 years old.

Next in order among the surgical

*Does not include personnel in Pacific Coast States.

TABLE 1—HOSPITALIZATION AT SPECIFIED AGES, 18 YEARS AND UNDER ACCORDING TO TYPE OF CASE. AUGUST 1953—JULY 1954 CHILDREN OF METROPOLITAN LIFE INSURANCE COMPANY PERSONNEL*

AGE PERIOD (YEARS)	PERCENTAGE OF CASES			AVERAGE HOSPITAL STAY, IN DAYS		
	TOTAL CASES	CASES WITH SURGERY	CASES WITHOUT SURGERY	TOTAL CASES	CASES WITH SURGERY	CASES WITHOUT SURGERY
18 and Under....	100%	100%	100%	5.0	3.6	8.6
Under 5.....	37	33	48	5.0	3.5	7.6
5- 9.....	37	41	25	3.5	2.5	7.9
10-14.....	16	16	16	6.8	5.1	11.0
15-18.....	10	10	11	7.7	6.2	11.0

*Does not include personnel in Pacific Coast States.

procedures in this experience were treatment of fractures, herniotomies, and removal of benign tumors or cysts. The last-named group included 43 cases, with an average hospital stay of about five and one-half days. In addition, there were four operations for malignant tumors, the period of hospitalization varying from two days for a skin tumor to 128 days for a metastatic cancer of the bone. The average hospital stay for these four cases was 42 days.

Other leading types of surgery in order of frequency were operations on the eye, circumcisions (after 14 days of age), orthopedic surgery, suturing, and surgical repair.

Somewhat under one third of the children hospitalized in this insurance experience were confined because of disease or nonsurgical treatment of injuries. Diseases of the respiratory system headed this list, accounting for nearly three out of every 10 nonsurgical cases. Pneumonia and influenza were the most common diagnoses; tonsillitis was responsible for an appreciable number of additional cases. Almost two thirds of the children hospitalized for diseases of the respiratory system were under 5 years of age.

About one eighth of the nonsurgical cases in this experience were treated for accidental injuries. The principal types of mishaps, in order of frequency, were head injuries, poisoning, contusions, lacerations, and sprains or strains. For boys, the cases were distributed fairly evenly over the entire range of ages, but for girls they were largely concentrated at the preschool ages. Altogether, there were twice as many claims for hospital treatment of accidental injuries among boys as among girls.

Among the nonsurgical cases, diseases of the digestive system accounted for about the same number of cases as accidental injuries. Next in order of numerical importance was the category "infections and

TABLE 2—LEADING CAUSES OF HOSPITALIZATION AT AGES 18 YEARS AND UNDER AND AVERAGE DURATION OF HOSPITAL STAY. AUGUST 1953—JULY 1954 CHILDREN OF METROPOLITAN LIFE INSURANCE COMPANY PERSONNEL*

CASES WITH SURGERY			CASES WITHOUT SURGERY		
TYPE OF CASE	Number of Cases	Average Duration of Hospital Stay, in Days	TYPE OF CASE	Number of Cases	Average Duration of Hospital Stay, in Days
Surgical Cases—Total	1,541	3.6	Nonsurgical Cases—Total	612	8.6
Tonsillectomy and/or adenoidectomy	848	1.4	Diseases of the respiratory system	175	5.6
Appendectomy	148	6.2	Accidental injuries	80	3.6
Treatment of fractures	89	6.1	Diseases of the digestive system	78	5.5
Herniotomy (all types)	68	5.2	Infectious and parasitic diseases†	47	25.2
Removal of benign tumors or cysts	43	5.4	Congenital malformations and diseases peculiar to early infancy	27	13.2
Operations on eye	43	3.7	Diseases of the skin	26	6.8
Circumcision (after 14th day of age)	38	3.9	Diseases of the urinary tract	17	5.6
Orthopedic surgery	29	9.7	Diseases of the ear	16	5.0
Suturing; skin, tendons, muscles, etc.	26	3.9	Diseases of the central nervous system	13	34.3
Surgical repair	20	11.5	Rheumatic fever	10	11.3

*Does not include personnel in Pacific Coast States.
†Includes acute poliomyelitis and other common communicable diseases of childhood.

parasitic diseases," which included 12 cases of acute poliomyelitis—five among girls and seven among boys. One child with bulbar poliomyelitis died soon after admission to the hospital. In the other 11 cases the children remained in the hospital from 13 to 205 days, with an average stay of 87 days. Eight of the 12 poliomyelitis victims were under age 10.

Among the other leading causes of hospitalized illness requiring nonsurgical treatment, the average duration of hospital stay was above average for congenital malformation and diseases peculiar to early infancy, for diseases of the central nervous system, and for rheumatic fever.

Gas Poisoning Hazards

ALTHOUGH considerable progress has been made in reducing mortality from accidental gas poisoning, this cause still takes an annual toll of approximately 1,400 lives in the United States, or nearly 1 per 100,000 population. Almost three quarters of these deaths occur in the fall and winter months. The number of fatalities usually starts to rise in October, when home heating facilities begin to be used, and reaches its peak in December; thereafter the seasonal curve falls until it reaches its lowest level in the summer.

Males record a higher death rate from accidental gas poisoning than females, as is evident from Table 1, which is based on the experience among Industrial policyholders of the Metropolitan Life Insurance Company during the years 1951-1953. The average death rate for males at ages 1-74 was 1.1 per 100,000, com-

pared with .5 for females. Throughout the greater part of adult life, the rate for males was about four times that for females.

TABLE 1—ACCIDENTAL POISONING BY GASES AND VAPORS
DEATH RATES BY SEX AND AGE
METROPOLITAN LIFE INSURANCE COMPANY INDUSTRIAL POLICYHOLDERS,* 1951-1953

AGE PERIOD (YEARS)	AVERAGE ANNUAL DEATH RATE PER 100,000	
	MALES	FEMALES
1-74	1.1	0.5
1- 4	0.4	0.3
5-14	0.1	0.2
15-24	0.7	0.5
25-34	1.2	0.3
35-44	1.6	0.4
45-54	2.5	0.5
55-64	2.4	0.7
65-74	2.3	1.8

*Premium-paying business, Weekly and Monthly.

In this insurance experience, three out of every four deaths from accidental gas poisoning took place in and about the home. The circumstances under which these home deaths occurred are indicated in Table 2. Gas ranges or gas heaters were involved in more than half of these fatalities. A common cause of such accidents was the turning on of jets in these appliances but not lighting them. This came about in various ways: by persons brushing against the jet; by someone turning on the gas and failing to light it because of lack of familiarity with the range or because of faulty memory; by young children turning on jets. Incomplete combustion in gas stoves or gas heaters in poorly ventilated rooms accounted for one eighth of the deaths in and about the home. About as many deaths were caused by leaky connections or other defects of gas cooking and heating appliances. It is noteworthy that home gas refrigerators were involved in only four fatalities. Altogether, illuminating gas in one way or another was responsible for fully two thirds of all the deaths from gas poisoning in and about the home.

Running an automobile motor in a household garage accounted for 46 fatalities in this study, most of them males. A considerable proportion of these men were working on cars in a closed garage while others were foolish enough, under similar conditions, to run the motor of their cars to keep warm.

Carbon monoxide produced by coal furnaces and stoves also contributed materially to the death toll from gas poisoning in and about the home, taking 16 lives in this insurance experience. Kerosene appliances were responsible for an additional 10 deaths. Three policyholders were asphyxiated by smoldering fires which were started by careless smoking of cigarettes or pipes in bed or in a chair.

There were 90 deaths from accidental gas poisoning in places other than the home among the Metropolitan's Industrial policyholders during the years 1951-1953. Of this number, about 40 took place in public or industrial garages, factories, mines, and similar sites. Automobile exhaust fumes were the leading cause of fatalities, with a wide variety of

TABLE 2—DEATHS FROM ACCIDENTAL POISONING BY GASES AND VAPORS IN THE HOME ACCORDING TO AGENCY INVOLVED AND ACTIVITY OF PERSON INDUSTRIAL POLICYHOLDERS,* METROPOLITAN LIFE INSURANCE COMPANY, 1951-1953

AGENCY INVOLVED AND ACTIVITY	NUMBER OF DEATHS	PERCENT OF TOTAL	AGENCY INVOLVED AND ACTIVITY	NUMBER OF DEATHS	PERCENT OF TOTAL
Total	268	100			
Utility (illuminating) gas	183	68	Utility (illuminating) gas (Cont.)		
Gas range (stove)	90	33	Defective gas furnace (3), refrigerator (4)	7	3
Jet left open but unlit	42	16	Defective gas line	6	2
Flame extinguished by boiling over of food or liquid	12	4	Utility (illuminating) gas, unspecified	23	9
Defective range	10	4			
Fumes from incomplete combustion	9	3	Auto exhaust from running motor		
Flame blown out, open window	5	2	in garage	46	17
Other and unspecified circumstances	12	4	Working on car	16	6
			Other and unspecified circumstances	30	11
Gas heater	57	21			
Incomplete combustion	24	9	Other and unspecified	39	15
Defective heater	15	6	Coal furnace, stove, bucket	16	6
Unvented heater	6	2	Kerosene stove, heater, lamp	10	4
Other and unspecified circumstances	12	4	Other and unspecified gases and vapors	13	5

*Premium-paying business, Weekly and Monthly. Exclusive of the Pacific Coast and Canada.

other gases, including carbon tetrachloride vapor, accounting for the remainder of the deaths in this group. An appreciable number of the 90 deaths occurred when persons were overcome by fumes from a running motor in a car or truck parked on the street or highway. A few of the insured died from faulty gas heaters in tourist cabins which had all windows and doors closed.

The circumstances under which deaths from accidental gas poisoning occur make it clear that the loss of life from this cause can be greatly reduced—a fact underscored by the safe use of gas appliances by millions of families in our country. Much could be accomplished by simple precautions, such as proper installation and maintenance of gas stoves and heating appliances. Similarly, emphasis must be placed on proper venting of other fuel burning appliances. Furthermore, many lives could be saved by avoiding various unsafe practices, such as retiring at night with gas heating appliances burning in poorly ventilated rooms, or running the motor of an automobile in garages where the doors and windows are shut.

DEATH RATES FROM SELECTED CAUSES
INDUSTRIAL POLICYHOLDERS, METROPOLITAN LIFE INSURANCE COMPANY
SEPTEMBER 1954

CAUSE OF DEATH	ANNUAL RATE* PER 100,000 POLICYHOLDERS†				
	SEPTEMBER		YEAR TO DATE		
	1954	1953	1954	1953	1952
All Causes—Total	572.7	611.5	630.7	655.4	661.4
—Excluding war deaths	572.3	609.6	627.1	653.1	658.8
Tuberculosis (all forms)	7.9	8.9	9.4	10.6	14.9
Tuberculosis of respiratory system	7.0	7.9	8.6	9.5	13.6
Syphilis	2.7	1.7	2.5	2.6	2.9
Communicable diseases of childhood	—	.1	.4	.4	.6
Acute poliomyelitis	1.8	2.9	.5	1.0	1.2
Malignant neoplasms	130.8	129.0	129.1	126.1	126.1
Digestive system	49.9	44.6	47.2	44.8	47.0
Respiratory system	16.6	16.7	16.4	15.6	14.1
Diabetes mellitus	12.7	15.1	14.7	15.8	14.5
Diseases of the cardiovascular-renal system	288.9	312.4	328.7	346.7	348.1
Vascular lesions, central nervous system	57.4	59.6	64.0	67.8	69.7
Diseases of heart	207.8	227.2	238.4	251.2	249.4
Chronic rheumatic heart disease	11.2	10.9	12.5	13.2	13.6
Arteriosclerotic and degenerative heart disease	154.9	171.4	179.0	187.3	181.9
Hypertension with heart disease	33.1	36.4	37.8	41.0	43.7
Other diseases of heart	8.6	8.5	9.1	9.7	10.2
Hypertension without mention of heart	4.4	5.3	5.7	5.9	6.1
General arteriosclerosis	5.1	6.6	5.9	6.3	6.6
Other diseases of circulatory system	5.7	4.5	5.3	4.7	4.4
Nephritis and nephrosis	8.5	9.2	9.4	10.8	11.9
Pneumonia	10.2	12.0	13.3	16.5	16.2
Influenza	.2	.5	1.1	3.5	2.1
Ulcers of stomach and duodenum	4.1	5.0	4.6	4.9	4.6
Appendicitis	1.3	1.1	1.3	1.4	1.7
Hernia and intestinal obstruction	2.8	4.1	3.9	3.9	3.6
Gastritis, duodenitis, enteritis, etc.	2.0	2.4	2.5	2.4	3.0
Cirrhosis of liver	10.5	8.5	9.9	10.1	10.2
Diseases of the gall bladder and biliary ducts	3.0	2.8	3.2	3.6	3.6
Complications of pregnancy, childbirth	1.6	1.2	1.1	1.3	1.5
Congenital malformations	2.5	2.8	2.9	3.1	3.4
Suicide	5.6	7.1	5.5	6.1	6.2
Homicide	2.1	2.4	2.3	3.0	3.4
Accidents—total	37.4	40.7	36.9	37.9	41.4
Motor vehicle	15.4	17.3	14.4	15.6	16.1
Home	4.3	7.3	6.6	7.4	7.9
Occupational (civilian)	3.6	3.9	2.6	3.5	3.9
War deaths—enemy action	.4‡	1.9	3.6‡	2.3	2.6
All other causes	44.0	48.7	53.3	52.3	49.6

*The rates for 1954 are provisional.
†Persons insured under Weekly and Monthly premium-paying policies.
‡The recorded mortality from war deaths in 1954 results from the payment of claims on policyholders originally reported as missing who have recently been declared officially dead.

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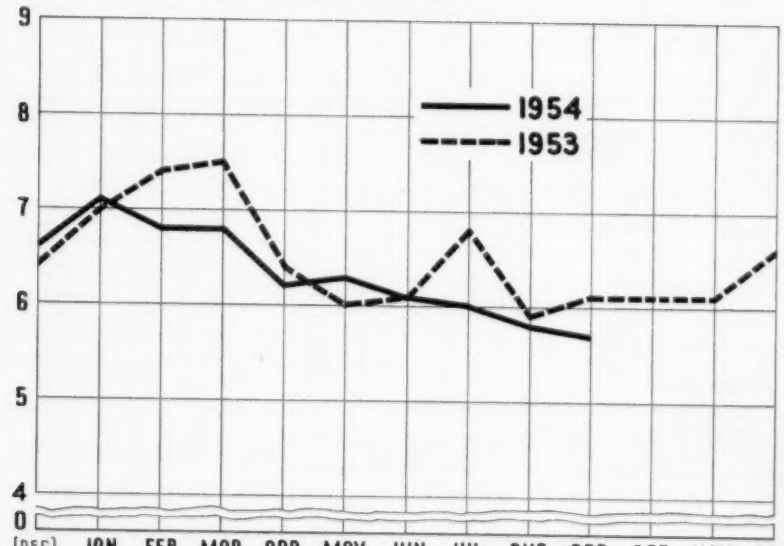
MORTALITY FROM ALL CAUSES

METROPOLITAN LIFE INSURANCE COMPANY · INDUSTRIAL PREMIUM-PAYING BUSINESS
WEEKLY AND MONTHLY COMBINED

DEATH RATES PER 1,000 POLICYHOLDERS · ANNUAL BASIS



(DEC)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1953	7.0	7.4	7.5	6.4	6.0	6.1	6.8	5.9	6.1	6.1	6.1	6.6
1954*	7.1	6.8	6.8	6.2	6.3	6.1	6.0	5.8	5.7			

1954 figures are provisional
**See footnote ‡ in table on page 11*

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